## AMENDMENTS TO THE CLAIMS

1.      (Previously Presented) A data processing apparatus, comprising:

a data storage unit that stores a plurality of data;

a data processing unit that performs a processing for a data among the plurality of data and computes an importance value of the data for assigning a subsequent processing priority to the data; and

an important component selection unit having a plurality of registers for storing a priority list, each register storing a set of an identifier indicating one of the data stored in the data storage unit and the importance value of the indicated data;

wherein the important component selection unit outputs one of the identifiers whose corresponding importance value is the highest in the importance values stored in the registers; ;

wherein the data processing unit performs: processing for the data indicated by the output of the important component selection unit, updating data stored in the data storage unit whose values are changed by the processing, computing the importance value of the each updated data, and transmitting the set of the importance value and corresponding identifier of the each updated data to the important component selection unit; and

wherein the important component selection unit updates the priority list to reflect the transmitted set of the importance value and identifier, wherein, if the same identifier already exists in the priority list, the important component selection unit, comparing two importance values having the same identifier, excludes the lower one from the priority list.


2.-4.    (Cancelled)


5.      (Previously Presented) The data processing apparatus of claim 1, wherein

the important component selection unit comprises a data arrangement control circuit, and wherein

the data arrangement control circuit makes the plurality of registers hold the plurality of data in accordance with each importance value of the plurality of data.

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6.      (Previously Presented) The data processing apparatus of claim 1, wherein

a plurality of the data processing units are provided.


7.      (Previously Presented) The data processing apparatus of claim 6, wherein

a plurality of the data storage units and the important component selection units are

provided.


8.      (Previously Presented) The data processing apparatus of claim 7, further

comprising:

a first transfer control circuit that controls data transfer between the plurality of the data

storage units and the plurality of the data processing units; and

a second transfer control circuit that controls data transfer between the plurality of the

important component selection units and the plurality of the data processing units.


9.-10.  (Cancelled)


11.     (Currently Amended) A ~~data processing method with~~method of processing data

using a data processing apparatus that has one or more control circuits, comprising the steps

performed by the one or more control circuits ~~a controller~~ of the data processing apparatus of:

preparing a plurality of data, each data having a plurality of candidate values, an

importance value and an identifier, and a priority list for setting a processing order for each data;

performing a processing for one of data that has a highest priority in the priority list and

is indicated by the corresponding identifier, wherein a statistic of the candidate values that refer

mean or median for each data ~~such as mean and median~~ is used as a representative value of the

data;

updating at least one of data whose value is changed into a new value by the processing,

wherein the new value replaces one of the corresponding candidate values that is farthest from

the new value;


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computing the importance value of each updated data as a function of the corresponding candidate values that refer ~~such as~~ magnitude of variation;

determining the priority list in accordance with a magnitude of importance based on the computed importance value; and

repeating the steps of performing, updating, computing and determining until termination condition is reached.

12.    (Currently Amended)  A recording medium recording a computer-readable program, wherein

the computer-readable program when executed causes a computer to perform the steps of:

preparing a plurality of data, each data having a plurality of candidate values, an importance value and an identifier, and a priority list for setting a processing order for the plurality of data;

processing for one of data that has a highest priority in the priority list and is indicated by the corresponding identifier, wherein a statistic of the candidate values for each data is used as a representative value of the data;

updating at least one of data whose value is changed into a new value by the processing, wherein the new value replaces one of the corresponding candidate values that is farthest from the new value;

computing the importance value of each updated data as a function of the corresponding candidate values ~~such as~~ that refer magnitude of variation; and

determining the priority list in accordance with a magnitude of importance based on the computed importance value; and

the computer-readable program when executed causes the computer to perform another step of repeating the steps of ~~performing; processing,~~ updating, computing and determining until termination condition is reached.

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